

WHAT IS CLAIMED IS:

1. A hollow profile (1) formed of a flat material (31) having a width (d), the hollow profile (1) comprising a plurality of side walls (2.1, 2.2, 5.1, 5.2); and at least one groove (6.1, 6.2, 7.1, 7.2) provided on an outer side of at least one of the plurality of walls (2.1, 2.2, 5.1, 5.2) and having a bottom (8.1, 8.2, 9.1, 9.2) spaced from the outer side by a depth (t) and two opposite, substantially flat side walls (13.1, 13.2, 40.1, 40.2) extending substantially perpendicular to the bottom (8.1, 8.2, 9.1, 9.2),

wherein the groove depth (t) of the at least one groove (6.1, 6.2, 7.1, 7.2, 32) amounts to from .5 to 2 times of the material thickness (d) of the flat material (31).

2. A hollow profile according to claim 1, wherein the depth (t) of the at least one groove (6.1, 6.2, 7.1, 7.2, 32) amounts to less than 1.5 times of the material thickness (d) of the flat material (31).

3. A hollow profile according to claim 1, wherein each of the plurality of side walls (2.1, 2.2, 5.1, 5.2) has at least one groove provided thereon.

4. A hollow profile according to claim 3, wherein the grooves, which are provided on the plurality of side walls, have a substantially same shape.
5. A hollow profile according to claim 1, wherein at least one mounting opening (11.1, 11.2, 12.1, 12.2) is formed in the bottom (8.1, 8.2, 9.1, 9.2) of the at least one groove.
6. A hollow profile according to claim 1, wherein the flat material (31) is sheet steel.
7. A method of forming a hollow profile (1) formed of a flat material (31) having a width (d) and including at least one groove (32) provided on an outer side of at least one wall of the hollow profile (1) and having a bottom (8.1, 8.2, 9.1, 9.2) spaced from the outer side by depth (t) and two opposite substantially flat side walls (13.1, 13.2) extending substantially perpendicular to the bottom (8.1, 8.2, 9.1, 9.2), the method comprising the steps of:

forming a groove with a depth (T) greater than a predetermined end depth (t) of the at least one groove (32);

pressing a bottom (33) of the groove with the greater depth (T) in a direction opposite a direction of formation the groove with the greater depth (T) until the predetermined end depth (t) of the at least one groove (32) is substantially reached, with formation, as a result of a groove having a dovetail cross-section;

pressing a projecting material (36) of the dovetail groove backward; and

bending the flat material (31) to a desired shape of the profile.

8. A method according to claim 7, wherein the projecting material pressing step includes pressing the projecting material (36) with a roll (35).

9. A method according to claim 7, further comprising the step of straightening the bottom (33) of the at least one groove after pressing backward the projecting material (36).

10. A method according to claim 9, further comprising the step of forming a material locking connection of free longitudinal edges of the bent flat material.